

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** **0878054009**  
**Status:** **Active**  
**Overview:** extreme\_powerplus\_ssi  
**Description:** 5.08mm (.200") Pitch Power, 2.54mm (.100") Pitch Signal, EXTreme PowerPlus™ P(A)-S-P(B) Header, Through Hole, Right Angle, 20 Circuits, Power Alpha 2, Signal 16, Power Beta 2; Recessed Signal Pin at B3, ScrewMount, Lead-free

**Documents:**

[3D Model](#) [Product Specification PS-87805-006 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

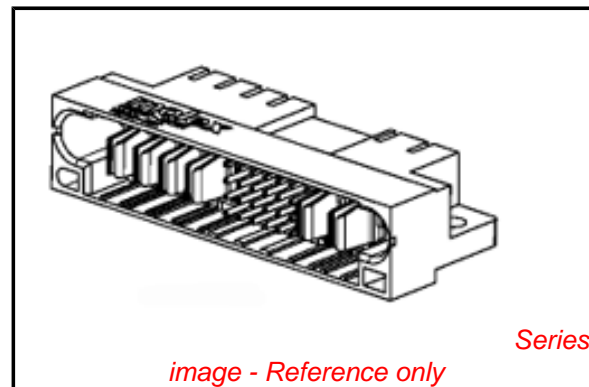
CSA LR19980

**General**

Product Family PCB Headers  
 Series 87805  
 Application Board-to-Board  
 Comments Recessed Signal Pin Location at: B3  
 Overview extreme\_powerplus\_ssi  
 Product Name EXTreme PowerPlus™

**Physical**

Breakaway No  
 Circuits (Loaded) 20  
 Circuits Detail Power Alpha 2, Signal 16, Power Beta 2  
 Color - Resin Black  
 Durability (mating cycles max) 100  
 First Mate / Last Break Yes  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Guide to Mating Part Yes  
 Keying to Mating Part Yes  
 Material - Metal Copper Alloy  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 4  
 Orientation Right Angle  
 PC Tail Length (in) 0.135 In  
 PC Tail Length (mm) 3.43 mm  
 PCB Locator No  
 PCB Retention Yes  
 Packaging Type Tray  
 Pitch - Mating Interface (in) 0.100 In, 0.200 In  
 Pitch - Mating Interface (mm) 2.54 mm, 5.08 mm  
 Plating min: Mating (µin) 30  
 Plating min: Mating (µm) 0.76  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.54  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes  
 Shrouded Fully  
 Stackable No  
 Temperature Range - Operating -20°C to +105°C  
 Termination Interface: Style Through Hole



**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free Status**  
**Not Reviewed**

**China RoHS**



**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

**Search Parts in this Series**  
 87805Series

**Electrical**

Current - Maximum per Contact 2.5A, 30A  
Voltage - Maximum 250V (RMS)

**Solder Process Data**

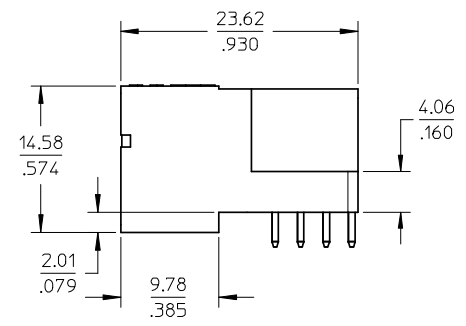
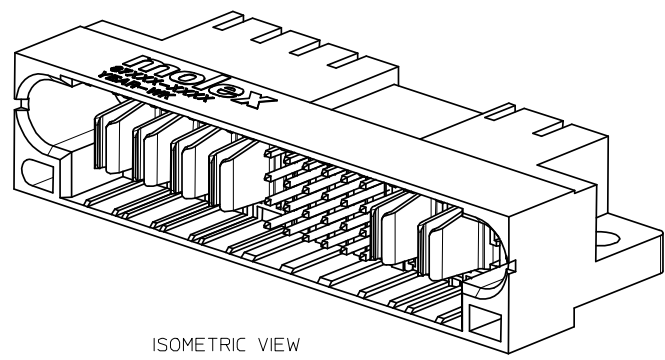
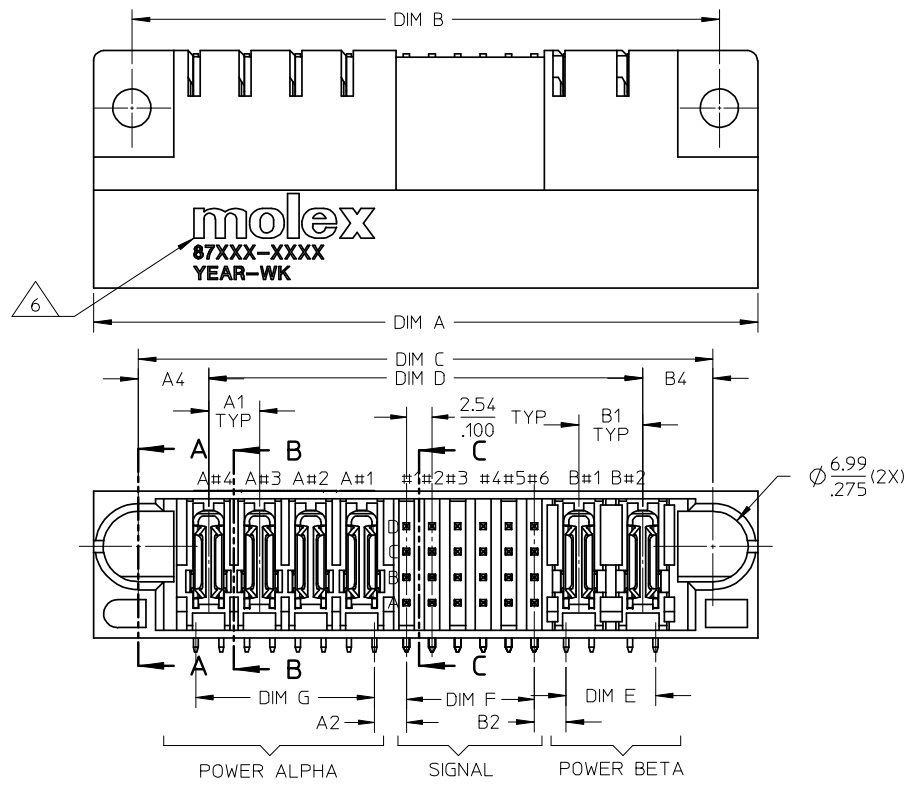
Duration at Max. Process Temperature (seconds) 10  
Lead-free Process Capability SMC & Wave Capable (TH only)  
Max. Cycles at Max. Process Temperature 3  
Process Temperature max. C 260

**Material Info****Reference - Drawing Numbers**

Application Specification AS-87631-018  
Product Specification PS-87805-006  
Sales Drawing SD-87805-010

This document was generated on 05/26/2010

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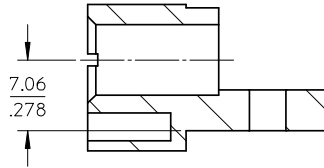
- NOTES:
1. MATERIALS: HOUSING - LCP, GLASS FILLED, UL94V-0, COLOUR: BLACK  
POWER PINS - COPPER ALLOY  
SIGNAL PINS - COPPER ALLOY
  2. FINISHES: POWER & SIGNAL PINS:  
SELECTIVE GOLD IN CONTACT AREA.  
THICKNESS= 0.76 MICROMETER/ 30 MICROINCH MINIMUM  
SELECTIVE TIN ALLOY IN THE PC TAIL AREA  
THICKNESS= 2.54 MICROMETER/100 MICROINCH MINIMUM WITH  
1.27 $\mu$ m MINIMUM NICKEL UNDERPLATE OVERALL.
  3. PRODUCT SPECIFICATION: PS-87805-006.
  4. SEE SHEET 2 FOR RECOMMENDED PCB LAYOUT AND THICKNESS.  
    - 5 COMPONENT STAY AWAY ZONE FROM CONNECTOR.
    - 6 MANUFACTURER LOGO, PART NUMBER AND YEAR-WEEK CODE.
    - 7 PCB NOTE FOR DIAMETER 1.02/.040 PLATED HOLE.  
- DRILLED HOLE SIZE IS 1.151/.0453.  
- PLATED WITH 0.007/.0003 MINIMUM TIN OVER 0.03/.001  
TO 0.08/.003 COPPER PLATING TO ACHIEVE 1.02 $\pm$ 0.08/.040 $\pm$ .003 HOLE.
  8. 4P ALPHA- 24 SIGNAL-2P BETA CONFIGURATION IS SHOWN FOR ILLUSTRATION.

PDR#S-001793-00-00 EC NO: S2008-0944 DRWN:SKANG 2008/05/06 CHKD:ATSEE 2008/05/07 APPR:MLONG 2008/05/07	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	$\blacktriangledown = 0$ $\triangle = 0$		MM/IN	NTS	METRIC		

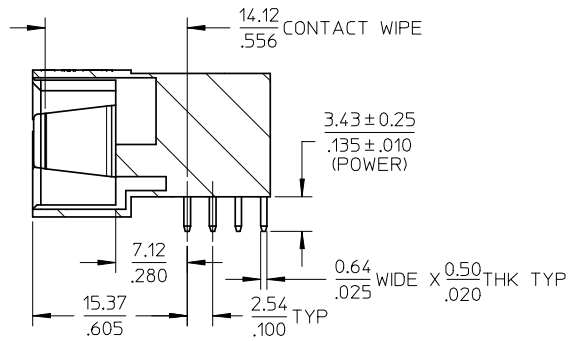
	mm	INCH
4 PLACES	$\pm$ ---	$\pm$ ---
3 PLACES	$\pm$ ---	$\pm$ .010
2 PLACES	$\pm$ 0.25	$\pm$ ---
1 PLACE	$\pm$ ---	$\pm$ ---
ANGULAR $\pm$ 3°		

DRAWN BY	DATE	TITLE
BHLOW	2003/05/27	POWER CONNECTOR HEADER P(A)-S-P(B) CONFIG. R/A, T/H, .200 VERSION
CHECKED BY	DATE	
PTL IM	2003/06/11	
APPROVED BY	DATE	
SKTOH	2003/06/13	
MATERIAL NO.	DOCUMENT NO.	
SEE TABLE	SD-87805-010	

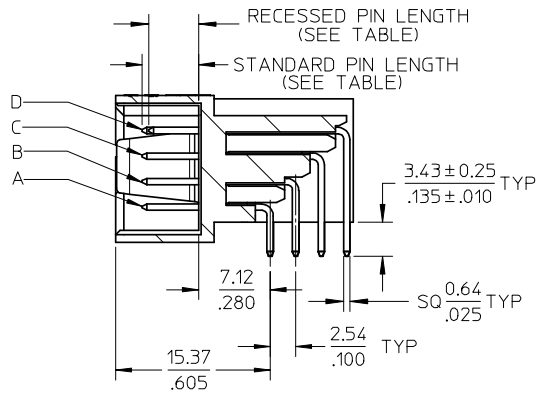
MOLEX INCORPORATED		SHEET NO.
		1 OF 3
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		



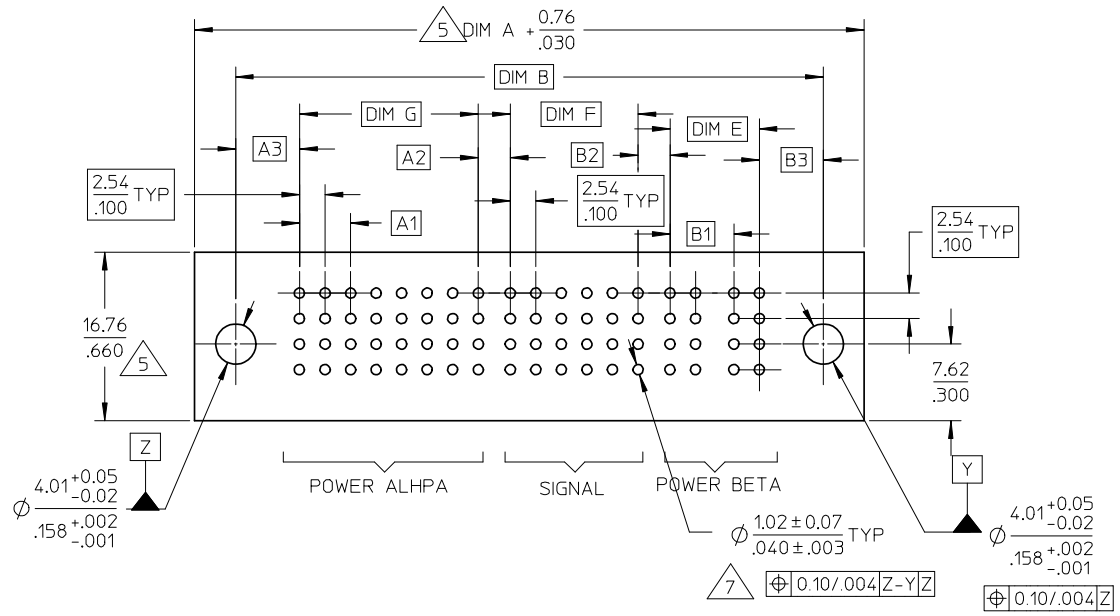
SECTION A-A



SECTION B-B



SECTION C-C



PDR#S-001793-00-00 EC NO: S2008-0944 DRWN:SKANG CHKD:ATSEE APPR:MLONG	2008/05/06 2008/05/07 2008/05/07	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
			$\nabla = 0$ $\nabla C = 0$	mm      INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM/IN DRAWN BY      DATE BHLW      2003/05/27 CHECKED BY      DATE PTLIM      2003/06/11 APPROVED BY      DATE SKTOH      2003/06/13	NTS TITLE POWER CONNECTOR HEADER P(A)-S-P(B) CONFIG. R/A, T/H, .200 VERSION	MOLEX INCORPORATED	
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87805-010	SHEET NO. 2 OF 3		
			SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

PART NUMBER	P-S-P CONFIGURATION			8		7		6		5		4		3		2		1				
	POWER ALHPA	SIGNAL	POWER BETA	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	STANDARD SIGNAL PIN LENGTH	RECESSED SIGNAL PIN		POWER ALHPA				POWER BETA				PACKAGING
												LENGTH	LOCATION	A1	A2	A3	A4	B1	B2	B3	B4	
87805-4001	4	24	2	66.04 2.600	58.42 2.300	57.15 2.250	43.18 1.700	8.89 .350	12.70 .500	17.78 .700	6.86/.270	5.59/.220	A6, B3	5.08	3.18	6.35	6.98	6.35	3.18	6.35	6.98	TRAY
87805-4002	4	28	4	77.47 3.050	69.85 2.750	68.58 2.700	54.61 2.150	17.78 .700	15.24 .600	17.78 .700	6.86/.270	5.59/.220	B4	5.08	3.18	6.35	6.98	5.08	3.18	6.35	6.98	TRAY
87805-4007	3	20	3	62.33 2.450	54.61 2.150	53.34 2.100	39.37 1.550	12.70 .500	10.16 .400	12.70 .500	6.86/.270	NIL	NIL	5.08	3.18	6.35	6.98	5.08	3.18	6.35	6.98	TRAY
87805-4008	2	24	2	54.61 2.150	47.00 1.850	45.72 18.00	31.76 1.250	7.62 .300	12.70 .500	7.62 .300	6.86/.270	5.59/.220	A1,A2,B1, B2,D1,D2	5.08	3.18	6.35	6.98	5.08	3.18	6.35	6.98	TRAY
87805-4009	2	16	2	49.53 1.950	41.91 1.650	40.64 1.600	26.68 1.050	7.62 .300	7.62 .300	7.62 .300	6.86/.270	5.59/.220	B3	5.08	3.18	6.35	6.98	5.08	3.18	6.35	6.98	TRAY
87805-4010	4	24	4	74.93 2.950	67.31 2.650	66.04 2.600	52.08 2.050	17.78 .700	12.70 .500	17.78 .700	6.86/.270	5.59/.220	A1,C1,C2, D1,D2,D6	5.08	3.18	6.35	6.98	5.08	3.18	6.35	6.98	TRAY
87805-4012	3	20	10	104.14 4.100	96.52 3.800	95.25 3.750	80.65 3.175	48.26 1.900	10.16 .400	17.78 .700	6.86/.270	5.59/.220	A1	7.62	3.81	6.98	7.62	5.08	3.18	6.35	6.98	TRAY
87805-4014	4	12	4	67.31 2.650	59.69 2.350	58.42 2.300	44.46 1.750	17.78 .700	5.08 .200	17.78 .700	6.86/.270	5.59/.220	C2	5.08	3.18	6.35	6.98	5.08	3.18	6.35	6.98	TRAY



PDR#S-001793-00-00 EC NO: S2008-0944 DRWN:SKANG CHKD:ATSEE APPR:MLONG	2008/05/06 2008/05/07 2008/05/07	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
			$\nabla = 0$ $\square = 0$	mm    INCH	MM/IN	NTS	METRIC	
				4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± ---	DRAWN BY    DATE BHLW    2003/05/27	CHECKED BY    DATE PTL IM    2003/06/11	TITLE	
				ANGULAR ± 3 °	APPROVED BY    DATE SKTOH    2003/06/13	MATERIAL NO.	DOCUMENT NO.	SHEET NO.
D2			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			